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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/676,330

09/30/2003

A. Daniel Feller

42P17275

6479

8791

7590

09/08/2006

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EXAMINER

GEORGE, PATRICIA ANN

ART UNIT

PAPER NUMBER

1765

DATE MAILED: 09/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/676,330

Applicant(s)

FELLER ET AL.

Examiner

Patricia A. George

Art Unit

1765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-6, 8-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date: _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6/30/06</u>   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/30/2006 has been entered.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-6 and 8-9 are rejected under 35 U.S.C. 103 as being unpatentable over Wang et al. (6,362,104).

Wang teaches slurry comprising: abrasives (as in claim 1) such as silica, or alumina (as in claim 8) (see col. 2, lines 23-37); pH of the slurry at 2-11, which encompasses applicants range of between about 4 to 8, as in claim 1 (see col. 10, lines 26-27); a corrosion inhibitor, such as BTA (as in claims 2 and 3) (see col. 8, line 47); a buffer system comprising an organic acid such as acetic, citric, or oxalic acid (as in claim 4 and 5) (see col. 8, lines 55-58), a salt of the organic acid such as potassium acetate (as in claim 4 and 6) (see col. 2, lines 23-37); and a surfactant (as in claim 9) (see col. 9, lines 40-44). Wang teaches periodic acid (see col.4, line 51) at a rate of 0.1 to 20 wt % (col.5, line 14) which appears to overlap the claimed units of a molar concentration from about 0.004M to about 0.006M, as in claim 1.

Although the reference of Wang does not explicitly disclose the concentration of periodic acid in the claimed units of molarity, it would have been obvious to one of ordinary skill in the art at the time of invention was made, to make the necessary conversion of weight percent, as Wang, when determining the molar amount of periodic acid, as in applicants' limitation, because all ingredients of the slurry would be known and calculative. Further, it would have been obvious to one of ordinary skill in the art at the time of invention was made, to adjust the quantity of periodic acid, for desired results, as applicants limitation, when forming the slurry, as Wang, because the invention of Wang illustrates the concentration of periodic acid may be adjusted to achieve desired results, evidenced by the range of Wang.

***Claim Rejections - 35 USC § 103***

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al., as applied to claims 1-6 and 8-9 above, further in view of Sachan et al. (6,693,035).

Although Wang teaches surfactants, Wang does not teach the use of cetyl-trimethyl ammonium hydroxide.

Sachan teaches methods to control the removal rate of metal polishing (ab.), including a slurry comprising the known surfactant of cetyl-trimethyl ammonium hydroxide, as in claim 10.

It would have been obvious to one of ordinary skill in the art at the time of invention was made, to include cetyl-trimethyl ammonium hydroxide, as Sachan, when forming a slurry for metal polishing, because Sachan teaches it is a robust process capable of generating improved polishing results, which is a known process improvement.

***Response to Arguments***

Applicant's arguments filed on 6/20/2006 have been fully considered but they are not persuasive. Applicants' arguments drawn to the new endpoint limitation of 0.006M are persuasive. As a result, the previous rejection over Kaufman is withdrawn. Upon further consideration, a new grounds of rejection is made to address applicants amendments, above.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia A. George whose telephone number is (571)272-5955. The examiner can normally be reached on weekdays between 7:00am and 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on (571)272-1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patricia A George  
Examiner  
Art Unit 1765

  
PAG  
08/06

NADINE NORTON  
SUPERVISORY PATENT EXAMINER  
ART UNIT 1765  
